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February 23, 2016

David J. Bradley, Clerk

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION****DENNEROLL HOLDINGS PTY LIMITED, §
et al,****Plaintiffs,****VS.****CHIRODESIGN GROUP, LLC, et al,****Defendants.**§
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§**CIVIL ACTION NO. 4:15-CV-740****MEMORANDUM & ORDER**

Before the Court are the claim construction briefs filed by both parties in this patent infringement suit.¹ On January 15, 2016, the Court held a hearing, in accordance with *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), during which the parties presented argument in support of their proposed constructions. After considering the arguments of counsel, the evidence, and the applicable law, the Court finds that the disputed claims of the patent-in-suit should be construed as set forth herein.

Also pending before the Court are Defendants' Motion for Partial Summary Judgment on Non-Infringement (Doc. No. 36) and Defendants' Motion for Partial Summary Judgment on Patent Marking (Doc. No. 32).² For the reasons set forth below, the Court finds that both of these motions for partial summary judgment must be denied.

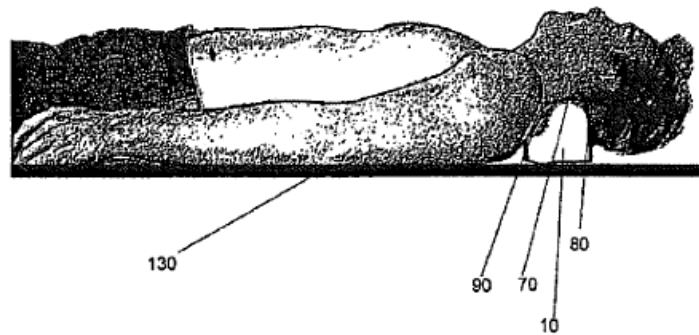
I. BACKGROUND

Plaintiffs Denneroll Holdings Pty Limited and Denneroll Industries International Pty Limited (collectively "Denneroll" or "Plaintiffs") brought suit against Defendants ChiroDesign

¹ In addition to alleging the willful infringement of their patent, Plaintiffs also assert a claim of false advertising in violation of § 43 of the Lanham Act, 15 U.S.C. § 1125(a).

² Defendants have also filed a Motion for Partial Summary Judgment on Plaintiffs' Lanham Act Claim (Doc. No. 35). The Court does not decide that Motion in this Order.

Group, LLC and Marie L. Webster³ (collectively “ChiroDesign” or “Defendants”), alleging that Defendants infringed U.S. Patent No. 8,713,732 (the “‘732 patent”), which Plaintiffs own. The ‘732 patent describes an orthotic device used to treat abnormal curvature of the human neck by stretching ligaments, muscles, and other soft tissues in a person’s neck. *See* Pls.’ Tech. Tutorial 1-2 (Doc. No. 65). To use the device, patients lie face-up on their backs, with the device placed in between the back of the neck and the underlying surface, like a pillow. *Id.* at 3. Figure 3 of the ‘732 patent, excerpted below, shows one preferred embodiment:



II. CLAIM CONSTRUCTION

A. Legal Standard

Claim construction is a matter of law, and thus the task of determining the proper construction of all disputed claim terms lies with the Court. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996). “It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). The general rule is that each claim term is construed according to its ordinary and customary meaning as understood by a person of ordinary skill in the art at the time of the invention and in the

³ ChiroDesign is a limited liability company owned and operated by Ms. Webster.

context of the patent. *Phillips*, 415 F.3d at 1312-13. The inquiry into the meaning that claim terms would have to a person of ordinary skill in the art is an objective one. *Innova/Pure Water*, 381 F.3d at 1116.

Courts must begin this inquiry by considering the intrinsic evidence, which consists of the claims themselves, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1313-14. “The appropriate starting point . . . is always with the language of the asserted claim itself.” *Comark Comm. Inv. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998). Courts must then look to the specification (or “written description”), the part of the patent where the inventor describes and illustrates the invention in significant detail. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). As the Federal Circuit has repeatedly stated, claims ““must be read in view of the specification, of which they are a part.”” *Phillips*, 415 F.3d at 1315 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). The specification “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Vitronics*, 90 F.3d at 1582. The prosecution history is another tool to supply the proper context for claim construction because, like the specification, the prosecution history provides evidence of how the Patent and Trademark Office (PTO) and the inventor understood the patent. *Phillips*, 415 F.3d at 1317. However, “because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Id.* at 1318; *see also Athletic Alternatives, Inc. v. Prince Mfg.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (ambiguous prosecution history may be “unhelpful as an interpretive resource”).

In most circumstances, analysis of the intrinsic evidence alone will resolve claim construction disputes. *Vitronics*, 90 F.3d at 1583. However, if the intrinsic evidence does not resolve ambiguities, extrinsic evidence may be considered. Extrinsic evidence, such as expert and inventor testimony, dictionaries, and treatises, “‘can shed light on the relevant art,’ but is less significant than the intrinsic record in determining the ‘legally operative meaning of disputed claim language.’” *C.R. Bard, Inc. v. United States Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004) (quoting *Vanderlande Indus. Nederland BV v. Int’l Trade Comm’n*, 366 F.3d 1311, 1318 (Fed. Cir. 2004)).

B. Construction of Disputed Claim Terms

The Asserted Claims of the ‘732 patent are claims 1, 2, 5-7, and 9-17. The only independent claim in the ‘732 patent is claim 1; the subsequent claims are all dependent. The claim construction briefs present nine distinct terms the constructions of which are in dispute between the parties. The Court will address them term by term.

1. “orthotic device”

The term “orthotic device” is used in all of the claims in the ‘732 patent.⁴ The parties do not have an actual dispute as to the ordinary meaning of this term. Defendants suggest that the term refers to “an artificial or mechanical aid that supports or assist[s] movement of a weak or injured part of the body.” Defs.’ Resp. Claim Construction Br. 15 (Doc. No. 71). Plaintiffs suggest that the term refers to “instruments which are applied to the human body to align, support, or correct deformities, or to improve the movement of joints, spine, or limbs.” Pls.’

⁴ Claim 16 states “cirrhotic device” rather than “orthotic device.” The parties agree that this was a typographical error by the Patent Office; therefore, “cirrhotic” shall be read as “orthotic.”

Reply Claim Construction Br. 4 (Doc. No. 76). There is not a significant difference between these definitions.

The parties' real dispute is whether this term is indefinite. Defendants contend that the '732 patent does not "define an orthotic device or otherwise explain how the claimed device qualifies as an orthotic device, or conversely, what would not qualify as an orthotic device." Defs.' Resp. Claim Construction Br. at 15. Plaintiffs contend that the meaning of "orthotic device" is clear from the patent and that no further construction is needed.

The Court agrees with Plaintiffs. The first substantive paragraph of the specification states that "the present invention relates to an orthotic device *for stretching tissue within the neck of a patient.*" '732 patent 1:10 (emphasis added). This statement informs a person of ordinary skill in the art, with reasonable certainty, as to the meaning of "orthotic device" and the scope of the invention. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). The meaning of "orthotic device" may vary depending on the context in which it is used, but the text of the specification is sufficient to clarify the scope of this term as it is used in the '732 patent. Therefore, the term is not indefinite and a construction is not needed.

2. "orthogonal"

Claim 1, and all of its dependent claims, describe the invention as:

[A] body having a base, two lateral side faces, and two terminal ends, **at least one of the lateral side faces and each of the terminal ends defining a plane *orthogonal* to a plane defined by the base**

See '732 patent 6:4-6. As the parties explained at the *Markman* hearing, these words, translated into plain English, essentially mean that the sides of the invention are "orthogonal" to its base. See also Defs.' Mot. P. Summ. J. 5 n.1 (Doc. No. 36) (translating the phrase into "plain English"). Both parties agree that the generic or lay definition of "orthogonal" is

“perpendicular.” *See id.* at 15 (“Structures that are orthogonal are perpendicular to, or at 90° angles of, each other”); *id.* (collecting dictionary definitions); Pls.’ Resp. Opp. Defs.’ Mot. P. Summ. J. 15 (Doc. No. 47) (discussing “the analogous term ‘perpendicular’”); Pls.’ Claim Construction Br. 18 (Doc. No. 67) (“The term ‘perpendicular’ is just a synonym for ‘orthogonal’ . . .”). But of course, “[w]hat the claim terms would mean to laymen is irrelevant.” *Dana Corp. v. Am. Axle & Mfg., Inc.*, 110 F. App’x 871, 877 (Fed. Cir. 2004). Rather, the Court must determine “how a person of ordinary skill in the art” would understand the claim term “in the context of the particular claim in which the disputed term appears” and “in the context of the entire patent, including the specification.” *Phillips*, 415 F.3d at 1313. When read in the context of the ‘732 patent and from the perspective of a person of ordinary skill in the art, the term “orthogonal,” according to the parties, could mean one of two things. Plaintiffs argue that “a construction should allow some deviation from exactly 90 degrees.” Pls.’ Claim Construction Br. at 19; *see also* Pls.’ Resp. Opp. Defs.’ Mot. P. Summ. J. Non-infringement at 4, 15-18 (arguing that “orthogonal” means “generally orthogonal” and its “meaning is not limited to exactly 90°”). Defendants, on the other hand, contend that “orthogonal” means that “two planes are oriented . . . 90 degrees to each other.” Defs.’ Resp. Claim Construction Br. at 16; *see also* Defs.’ Mot. P. Summ. J. Non-infringement 15 (Doc. No. 36). Defendants’ proposed construction of “orthogonal” thus requires a level of mathematical exactitude—*i.e.*, that the sides and the base must meet at precisely a 90 degree angle—that Plaintiffs’ understanding of the term does not require. For the reasons discussed below, the Court agrees with Plaintiffs and finds that the term “orthogonal” shall be construed to mean “approximately 90 degrees.”

Although the term “orthogonal” plainly denotes perpendicularity, the term carries an inherent ambiguity, namely, what degree of mathematical precision vis-à-vis a perfect 90° angle

is required? The language of the claim itself, always the starting point when construing claim terms, does not clarify this ambiguity. The claims do not define “orthogonal,” and they offer nothing that would signal how much of a deviation from 90 degrees the term “orthogonal” allows. The most that can be said of the claims is that there is nothing in them that suggests that “orthogonal” should be limited to a precise 90° measurement.

The specification is much more helpful in resolving the ambiguity. The language of the specification strongly indicates that the term “orthogonal” encompasses some room for deviation from an exact 90° angle. The word “orthogonal” appears only twice in the ‘732 patent, once in Claim 1 (excerpted above) and once in the specification, specifically, in the description of a preferred embodiment. The specification states: “At least one side face is *substantially vertical* in a normal position and wherein the base is orthogonal to the at least [sic] one side face.” ‘732 patent 4:42-45 (emphasis added). The specification thereby defines the term “orthogonal” as a configuration in which a side face is “substantially” vertical relative to the base. The use of the modifier “substantially” is critical. “[W]ords of approximation, such as ‘generally’ and ‘substantially,’ are descriptive terms” commonly used “‘to avoid a strict numerical boundary to the specified parameter.’” *Ecolab, Inc. v. Envirochem, Inc.*, 264 F.3d 1358, 1367 (Fed. Cir. 2001) (quoting *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1217 (Fed. Cir. 1995)). Because the language of the specification expressly ties the adverb “substantially” to the term “orthogonal,” it is clear that the claim term “orthogonal” “envisions some amount of deviation from exactly [90 degrees].” *Anchor Wall*, 340 F.3d at 1311 (holding that “the phrase ‘generally parallel’ envisions some amount of deviation from exactly parallel”); *see also Oakwood Energy Management, Inc. v. Le*, 2003 WL 25784783, *4 (E.D. Mich., Nov. 06, 2003) (“The court interprets the term ‘substantially orthogonal’ to allow some deviation from perpendicular.”).

Defendants argue that the language of the specification is insufficient to conclude that “orthogonal” permits an approximation because the claim itself does not contain the modifier “substantially.” *See* Hr’g Tr. 30:20-22 (“I just think that the main thing to focus on is that word [‘substantially’] is not in the claim. It’s in the specification.”); Defs.’ Reply Supp. Mot. P. Summ. J. Non-infringement 8 (Doc. No. 52). It is true that in the cases cited above, the courts were discussing the use of qualifying words such as “substantially” or “generally” in the claims themselves. However, Defendants’ argument—that the absence of “substantially” from the claim is fatal to Plaintiffs’ proposed construction—improperly discounts the specification as a source of claim construction. The specification “is the single best guide to the meaning of a disputed term”— “[u]sually, it is dispositive.” *Vitronics*, 90 F.3d at 1582.

One canon of claim construction is particularly useful here. “[I]t is axiomatic that a claim construction that excludes a preferred embodiment . . . ‘is rarely, if ever, correct.’” *Anchor Wall*, 340 F.3d at 1308 (quoting *Vitronics*, 90 F.3d at 1583); *see also Hoechst Celanese Corp. v. BP Chemicals Ltd.*, 78 F.3d 1575, 1581 (Fed. Cir. 1996) (“[I]t is unlikely that an inventor would define the invention in a way that excluded the preferred embodiment, or that persons of skill in this field would read the specification in such a way.”). If “orthogonal” were construed to require a perfect right angle, then the preferred embodiment—which describes a side face as being merely “substantially vertical” to the base—would not fall within the scope of the patent claim. Indeed, Defendants’ proposed construction would not only exclude the preferred embodiment, it would apparently also exclude the Plaintiffs’ product, the Cervical Denneroll device, which the patent was designed to cover. The inventor has declared that, “due to the nature of the materials and available manufacturing techniques, imperfections in the geometries of these types of devices are virtually inescapable In my experience, the manufacture of foam products is not

subject to exactness.” Dennewald Decl. ¶¶ 15-16 (Doc. No. 47-1); *see also* ‘732 patent 5:14-15 (“[T]he resiliently cushioned material can take the form of synthetic foam.”); Hr’g Tr. 33:11-16 (“[E]ven our products are not perfect [right angles]. . . . Here is one right here. The side has got a bulge in it.”).

In *Dana Corp. v. Am. Axle & Mfg., Inc.*, the Federal Circuit described precisely the issue the ‘732 patent presents. 110 F. App’x at 877. In *Dana Corp.*, the court construed the claim term “substantially uniform” to “allow for some variation,” yet observed that “*even if the modifier ‘substantially’ was not used [in the claim],*” the claim term would still have to be construed to allow for “manufacturing reality . . . otherwise, no real-world embodiment, including the patentee’s own embodiment, could fall within the scope of the claim.” *Dana*, 110 F. App’x at 877. A “claim interpretation that would exclude the inventor’s device is rarely the correct interpretation,” *Modine Mfg. Co. v. U.S. Int’l Trade Comm’n*, 75 F.3d 1545, 1550 (Fed. Cir. 1996), and such an interpretation would not be correct here. Accordingly, the Court construes the term “orthogonal” to mean “approximately 90 degrees.”⁵ *See Dana*, 110 F. App’x at 877 (construing “substantially uniform” to mean “largely or approximately uniform”); *3M Co. v. Avery Dennison Corp.*, No. CIV. 10-2630, 2012 WL 1004865, at *5 (D. Minn. Mar. 22, 2012) (construing “substantially orthogonally” to mean “approximately 90 degrees”).

⁵ The Court acknowledges that “approximately 90 degrees” arguably contains its own ambiguity but concludes that this construction is sufficiently definite. The Court cannot define “orthogonal” with more “specificity and precision [than] is warranted by the language of the claim and the evidence bearing on the proper construction.” *PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998). As the Federal Circuit held in *Acumed LLC v. Stryker Corp.*, “[A] sound claim construction need not always purge every shred of ambiguity. The resolution of some line-drawing problems—especially easy ones like this one—is properly left to the trier of fact.” 483 F.3d 800, 806 (Fed. Cir. 2007) (holding that district court’s construction, “without sharp angles,” was not insufficiently definite, as a “reasonable jury could have found that in the context of this sort of nail, a rounded bend of six degrees was not a ‘sharp angle.’”).

3. “convex” and “concave”

The Court decided at the *Markman* hearing that the terms “convex” and “concave” do not need construction, as they are sufficiently definite and their plain and ordinary meaning would be reasonably clear to a person of ordinary skill in the art. *See* Hr’g Tr. 46:13-15.

4. “configured to . . . stretch a patient’s neck.”

This phrase appears in Claim 1 and all of its dependent claims. Defendants argue that the term “configured to . . . stretch a patient’s neck” is indefinite. Defs.’ Resp. Claim Construction Br. at 11. Plaintiffs contend that the term is sufficiently definite and that no construction is needed.

The Court agrees with Plaintiffs. The specification describes and illustrates how one would configure a convex support surface to “stretch a patient’s neck” in the context of the ‘732 patent. *See, e.g.*, ‘732 patent 4:2-6 (“The first support surface 40 acts as a positional fulcrum such as to gently bend the patient’s neck 70 over the first support surface 40 whilst suspending the patient’s head 80 above a substrate surface 130”); *id.* 5:6-10 (“the patient’s head 80 is slightly lifted from the substrate surface 130 whilst the patient lies in a supine position, suspending the patient’s head 80 from the substrate surface 130 and applying a gentle stretch to the patient’s neck 70 and spine.”); *id.* at Fig. 3 (excerpted above, *see supra* p. 2). When read in light of the specification, the claim term would, with reasonable certainty, inform a person of ordinary skill in the art about the scope of the claim.

The Court is not persuaded by Defendants’ attempt to equate the term “stretch” with facially subjective terms like “aesthetically pleasing,” which the Federal Circuit has held to be indefinite. *See Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342 (Fed. Cir. 2005) *abrogated on other grounds by Nautilus*, 134 S. Ct. 2120. Unlike the phrase “aesthetically

pleasing,” the term “configured to . . . stretch a patient’s neck” does not “depend solely on the unrestrained, subjective opinion of a particular individual.” *Id.* at 1350. Rather, the language of the specification provides detailed, objective direction to a person of skill in the art as to how a device may be configured such that it “stretch[es] a patient’s neck” within the meaning of the ‘732 patent. *See Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1384 (Fed. Cir. 2015) (“*Nautilus III*”) (holding that the term “spaced relationship” is not indefinite because it can be determined by skilled artisans when configuring the claimed invention). This term therefore is not indefinite and no construction is needed.

5. “the spacing between the apex of the first support surface and the base is greater than the spacing between the second support surface and the base”

This phrase appears in Claim 1 and all of its dependent claims. Defendants argue that this claim limitation is indefinite. Defs.’ Resp. Claim Construction Br. at 22-23. Plaintiffs contend that the term is sufficiently definite and that no construction is needed.

The Court agrees with Plaintiffs. A person of ordinary skill in the art would readily understand that this claim term means that the apex of the first support surface is higher than the second support surface. This is evident in every figure of the ‘732 patent. For example, as Figure 1 (excerpted below) shows, the “[s]pacing between an apex 60 of the first support surface 40 and the base 30 is greater than spacing between the second support surface 50 and the base 30.” ‘732 patent 4:11-14.

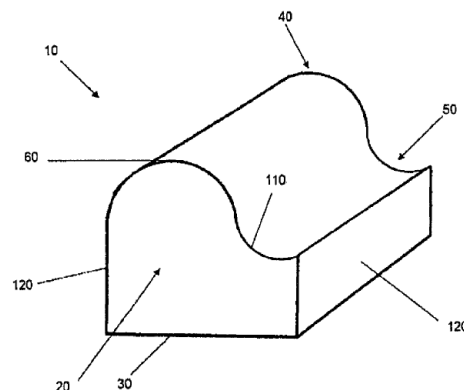


FIGURE 1

In addition to the figures, the specification also contains language providing context and guidance that would make clear to a skilled artisan what is meant by this claim term. *See, e.g.*, ‘732 patent 2:44-52 (“the orthotic device may comprise a second support surface for supporting a region of the patient lower down than the selected region of the patient's neck to restrict cervical over-extension, wherein the spacing between an apex of the first support surface and the base is greater than spacing between the second support surface and the base. Preferably, the second support surface supports a region of the patient’s neck immediately lower than the selected region.”).

Defendants argue that the term is indefinite because the patent does not specify “how one would measure the ‘spacing between the second support surface and the base,’” nor does it indicate exactly where the first support surface ends and the second begins. Defs.’ Resp. Claim Construction Br. at 23. These omissions do not render the claim indefinite. The patent makes clear that the apex of the first support surface will be higher than the second support surface regardless of how exactly one measures or where precisely one draws the line between the two surfaces.

6. “adjacent”

The term “adjacent” appears in two different phrases in Claim 1:

the third support surface is adjacent the first support surface . . .

the second concave surface is adjacent the first convex surface and the second concave surface is adjacent the second convex surface

‘732 patent 6:22-30. Defendants argue that this claim limitation is indefinite. Defs.’ Resp. Claim Construction Br. at 23-24. Plaintiffs contend that the term is sufficiently definite and that no construction is needed.

The Court agrees with Plaintiffs. The ordinary and customary meaning of “adjacent” would be readily understood by a person of ordinary skill in the art. The phrases using the term “adjacent” simply describe the locations of the various surfaces of the invention relative to one another. There is nothing about the term that renders the scope of the patent unclear. Accordingly, the term is not indefinite and needs no construction.

7. “cushioning material”

Claims 2 and 16 state that “at least the first support surface is made from a cushioning material.” ‘732 patent 6:32; *id.* at 7:5. Defendants argue that the term “cushioning material” is indefinite. Defs.’ Resp. Claim Construction Br. at 24-25. Plaintiffs contend that the term is sufficiently definite and that no construction is needed.

The Court agrees with Plaintiffs. There is no dispute that the term “cushioning material” means a “material that cushions.” *Id.* at 25; *see also* Pls.’ Claim Construction Br. at 25. This ordinary meaning of the term is readily understandable and therefore needs no construction. *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) (“[A] district court is not obligated to construe terms with ordinary meanings, lest trial courts be inundated with requests to parse the meaning of every word in the asserted claims.”). The meaning of the term, when read in light of the claims and the specification, is also sufficient to inform a person of ordinary skill in the art about the scope of the patent. For example, Claim 16 specifies that the “cushioning material” refers to a material that can “resiliently compress between 5% to 35%.” ‘732 patent 7:5-6. The specification then provides, as a preferred embodiment, that “[i]n one form, the cushioning material consists of a synthetic foam such as for example a closed cell cross-linked polyethylene foam.” *Id.* at 2:25-27. Because the patent

delineates the scope of what may constitute “cushioning material,” the Court finds that the term is not indefinite.

8. “tangentially meets”

Although included in the list of disputed terms, the parties came to an agreement at the *Markman* hearing that the phrase “tangentially meets” shall be construed to mean “the point at which two curves meet,” *i.e.*, two curves that share a point. *See* Hr’g Tr. 65:12-69:10.

9. “the surface area of the first support surface in contact with the patient’s neck is less than the surface area of the base in contact with the substrate surface”

This phrase appears in Claim 7. Defendants argue that it is indefinite. Defs.’ Resp. Claim Construction Br. at 25. Plaintiffs contend that the term is sufficiently definite and that no construction is needed.

The Court agrees with Plaintiffs. Contrary to Defendants’ argument, the claim does not recite a “method” step and therefore is not indefinite under *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005) (“reciting both an apparatus and a method of using that apparatus renders a claim indefinite under section 112”). Rather, the limitation in Claim 7 simply describes the size of the first support surface relative to the size of the base, specifying that the first support surface must be smaller than the base. This language informs a person skilled in the art, with reasonable certainty, as to the scope of the invention. Accordingly, this claim term is not indefinite and needs no construction.

III. DEFENDANTS’ MOTIONS FOR PARTIAL SUMMARY JUDGMENT

A. Motion for Partial Summary Judgment on Non-Infringement

The Court’s ruling on the construction of the claim term “orthogonal” is dispositive of Defendants’ Motion for Partial Summary Judgment on Non-Infringement (Doc. No. 36). *See*

Defs.’ Reply Supp. Mot. P. Summ. J. Non-Infringement 2 (Doc. No. 53) (“The parties ‘dispute’ is a claim construction dispute over the plain meaning of ‘orthogonal,’ something which the Court must resolve as a matter of law.”); Order of Dec. 9, 2015 (Doc. No. 73) (“The central dispute in this motion is over the meaning of the claim term ‘orthogonal’ in U.S. Patent No. 8,713,732.”). Because the Court does not adopt the Defendants’ proposed construction—on which Defendants’ Motion for Partial Summary Judgment on Non-Infringement is based—the Court finds that Defendants’ Motion for Partial Summary Judgment on Non-Infringement must be denied.

B. Motion for Partial Summary Judgment on Patent Marking

1. Background

The issue in Defendants’ Motion for Partial Summary Judgment on Patent Marking is whether Plaintiffs complied with the patent marking statute, 35 U.S.C. § 287, such that Plaintiffs may demand pre-suit damages from Defendants in this case. Under 35 U.S.C. § 287, a patent owner is “entitled to damages from the time when it either began marking its product in compliance with section 287(a)[, *i.e.*, by providing constructive notice,] or when it actually notified [the accused infringer] of its infringement,” such as by filing suit. *American Medical Sys., Inc. v. Medical Eng’g Corp.*, 6 F.3d 1523, 1537 (Fed. Cir. 1993). The effect of § 287 is that a patent owner can only obtain damages for an infringement occurring prior to the filing of the lawsuit (what are known as “pre-suit damages”) if the patent owner can establish that it marked the patented product with the patent number in accordance with the provisions of § 287(a). *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1111 (Fed. Cir. 1996). Section 287(a) states in relevant part:

Patentees . . . may give notice to the public that [any patented article] is patented, either by fixing thereon the word “patent” or the abbreviation “pat.” together with

the number of the patent . . . or when, from the character of the article, this can not be done, by fixing to it, or to the package wherein one or more of them is contained, a label containing a like notice.

35 U.S.C. § 287(a).

The facts concerning Plaintiffs’ patent marking are not in dispute. Plaintiffs concede that they do not print the patent marking on the patented product itself; rather, they print the marking on the outside of the product’s packaging. Each Cervical Denneroll device box is marked twice with the ‘732 patent, once on each end of the box. Pls.’ Resp. Mot. Summ. J. Patent Marking 6-7 (Doc. No. 42) (images of packaging with patent marking).

2. Legal Standard

The disagreement between the parties centers on the legal standard that the Court should apply in determining whether Plaintiffs’ method of patent marking is satisfactory under § 287(a). Defendants’ argument that Denneroll’s marking is insufficient is premised on a strictly literal interpretation of § 287(a). Defendants argue that Denneroll has failed to comply with § 287(a) because Denneroll places the marking on the packaging rather than on the product, even though there is sufficient physical space to place the marking on the surface of the product. Because Denneroll has embossed on its product “a variety of non-patent text, including a trademark symbol, a sizeable logo, a website URL, a warning and instructions,” Defendants contend that “no reasonable jury could conclude it not feasible” for Denneroll to also emboss the patent marking on the product. Defs.’ Mot. Summ. J. Patent Marking 8 (Doc. No. 42); *see also id.* at 4-6 (images showing non-patent text on Cervical Denneroll device). Plaintiffs concede that it would be physically possible to print the patent marking on the device. Pls.’ Resp. Mot. Summ. J. Patent Marking 10 (Doc. No. 42).

The text of § 287(a), when read literally, does seem to provide that marking the package instead of the patented article will satisfy the statute only if “from the character of the article” the “fixing thereon” of the patent marking “*cannot be done.*” 35 U.S.C. § 287(a) (emphasis added). In other words, so long as it is physically possible to mark the patent on the product, the patent holder must do so and cannot satisfy the statute by instead marking the packaging. In support of this proposition, Defendants cite a line of district court opinions stating that if “the patented article has markings or printing on it, other than the appropriate patent marking, then the alternate form of patent marking on the package is not sufficient compliance with the [marking] statute.” *Kadant Johnson, Inc. v. D’Amico*, No. CIV.A. 10-2869, 2012 WL 38319, at *4 (E.D. La. Jan. 9, 2012) (quoting *Rutherford v. Trim-Tex*, 803 F.Supp. 158, 164-63 (N.D. Ill. 1992)); *see also Creative Pioneer Products Corp. v. K-Mark Corp.*, 5 U.S.P.Q.2d 1841, 1847-48 (S.D. Tex. 1987) (holding markings on patented tool’s packaging insufficient where tool’s handle displayed other lettering and calibrations); *John L. Rie, Inc. v. Shelly Bros., Inc.*, 366 F.Supp. 84, 90-91 (E.D. Pa. 1973).

However, the brightline physical-possibility test advocated by Defendants and a handful of district court opinions is not the correct standard. To the contrary, the Federal Circuit has made clear that courts must apply a much more flexible test that asks whether the method of marking effectuates the statutory purpose of § 287, namely, placing the public on notice that the product is the subject of a patent. The case of *Global Traffic Technologies LLC v. Morgan* is the Federal Circuit’s most recent and most definitive rejection of the argument asserted by Defendants.⁶ 620 F. App’x 895, 903 (Fed. Cir. 2015) *cert. denied*, 136 S. Ct. 824 (2016). The

⁶ Many district courts have also rejected Defendants’ brightline rule. *See, e.g., Stryker Corp. v. Zimmer Inc.*, 1:10-CV-1223, 2012 WL 6821683 (W.D. Mich. Nov. 29, 2012) (emphasizing “the marking statute’s notice-serving purpose over the precise mechanics of

defendants in *Global Traffic* urged the Federal Circuit to adopt precisely the same interpretation of § 287(a) that Defendants present. There, as here, the defendants claimed that a marking on the product's packaging was insufficient under § 287(a) if there was "sufficient physical space" to place the marking on the product. 620 F. App'x at 905. "In essence," the Federal Circuit wrote, "[defendants] ask us to hold as a matter of law that, if there is physical space on any component of a patented system, the patentee must mark that component to comply with the marking statute." *Id.* The Federal Circuit rejected this mechanistic approach and held that a more flexible, functionalist approach must be used. "Because the purpose of the marking statute is to provide constructive notice to the public . . . we apply a rule of reason analysis in determining when 'substantial compliance may be found to satisfy the [marking] statute.'" *Id.* (quoting *Maxwell*, 86 F.3d at 1111). If "the public may be better notified with marking on the packaging, as opposed to [on] the article itself," then "marking the packaging amounts to 'substantial compliance'" and § 287(a) is satisfied. *Id.* See also *Maxwell*, 86 F.3d at 1111 ("A 'rule of reason' approach is justified . . . and substantial compliance may be found to satisfy the statute."); *id.* ("The rule of reason is consistent with the purpose of the constructive notice provision—to encourage patentees to mark their products in order to provide notice to the public of the existence of the patent and to prevent innocent infringement."). Contrary to Defendants' position, then, the

compliance"); *Ethicon Endo-Surgery, Inc. v. Hologic, Inc.*, 689 F. Supp. 2d 929, 946 (S.D. Ohio 2010) (holding that the presence of non-patent markings on a patented article was insufficient to demonstrate non-compliance with § 287 because "in certain situations, like the present case, marking the device with information other than the relevant patent information may be more practical and more informative to the public"); *Heraeus Electro-Nite Co. v. Midwest Instrument Co.*, No. CIV.A.06-355, 2007 WL 3407128, at *5 (E.D. Pa. Nov. 14, 2007) (rejecting a "strict rule of law that alternative marking cannot satisfy the Marking Statute where the patentee is able to place other information on the patented product itself."); *Bowling v. Hasbro, Inc.*, 490 F. Supp. 2d 262, 277 (D.R.I. 2007).

question before the Court is not whether it is physically feasible to include a patent marking on Denneroll's product. Rather, "courts have interpreted [§ 287(a)] as requiring less than absolute physical impossibility." *PCT Int'l Inc. v. Holland Elecs. LLC*, No. 12-01797, 2015 WL 875200, at *9 (D. Ariz. Mar. 2, 2015). "Alternative marking of the package may sufficiently comply with the statute when . . . , for reasons that go to the very purpose of the statute, marking the article itself would not provide sufficient notice to the public.'" *Id.* (quoting *Rutherford*, 803 F. Supp. at 162).

The question of whether a plaintiff has satisfied § 287(a)—that is, whether the marking "provides sufficient constructive notice to the public," *Global Traffic*, 620 F. App'x at 905—is a question of fact. *Maxwell*, 86 F.3d at 1111. Therefore, at the summary judgment stage, the question before the Court is "whether Plaintiffs have produced sufficient evidence from which a reasonable trier of fact could find that the patent markings on the packaging satisfied § 287's public notice requirement." *Black & Decker Corp. v. Positec USA Inc.*, No. 11-CV-5426, 2015 WL 1543262, at *24 (N.D. Ill. Mar. 31, 2015).

3. Analysis

The Court finds that Plaintiffs' evidence is sufficient for a reasonable jury to conclude that "the public may be better notified with marking on the packaging, as opposed to [on] the article itself."⁷ *Global Traffic*, 620 F. App'x at 905. Where the patent owner "marks the packaging rather than the article, the district court should evaluate the specific character of the article at issue" to determine whether the owner's decision to mark the packaging provides sufficient constructive notice to the public such that § 287(a) is satisfied. *Id.*; *see also* 35 U.S.C.

⁷ Other district courts examining the sufficiency of patent marking on product packaging have reached the same conclusion and denied summary judgment on the issue of patent marking. *See supra* n.6 (collecting cases).

§ 287(a) (“the character of the article”).⁸ There are two “character of the article” bases on which a reasonable jury could conclude that Denneroll has substantially complied with § 287(a): first, placing the marking on the packaging instead of on the product allows the public to see the patent marking at the point of sale; second, because the product is intended for personal use, a marking on the product itself would be outside of public view.

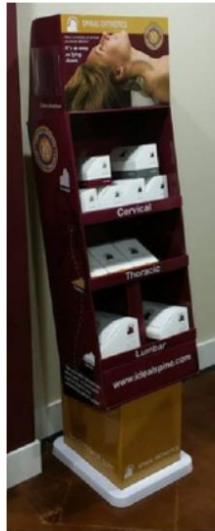
By placing the patent marking on the packaging of the Cervical Denneroll device, Denneroll’s patent rights are placed in plain view of the consuming public at the point at which the public encounters the product. Cervical Denneroll devices are first distributed to chiropractors’ offices, which then serve as the retail sales site where individual consumers can purchase the product. Pls.’ Resp. Mot. Summ. J. Patent Marking, Ex. B (Dennewald Decl.) ¶¶ 6-9, 12 (Doc. No. 42-3). Each device is sold in an opaque Denneroll-branded box. *Id.* ¶ 5. The image at left below, *see id.* at Ex. D (Doc. No. 42-5), shows the display stand used by chiropractors to sell the Cervical Denneroll device. The display stand holds a number of devices, each with one end of the box facing outward. Denneroll conspicuously marks the patent information on each end of the device box so that the marking is visible to the consumer, as is depicted in the image at right below. *See* Dennewald Decl. ¶¶ 3-5 (photo of device box with patent marking) (annotation

⁸ The Federal Circuit has made clear that the term “the character of the article,” 35 U.S.C. § 287(a), must be defined very broadly to effectuate the public-notice purpose behind the statute:

Certainly, the physical size of the article may be one factor in considering whether the article itself must be marked rather than the packaging. The physical size of the patented article, however, is *not the only thing* that defines the “character of the article.” 35 U.S.C. § 287(a). There may be many other aspects of a patented article that can affect whether marking the article provides sufficient constructive notice to the public. Because we do not pretend to know all of the possible types, characteristics, or components of patented—and yet to be patented—machines and systems, we cannot construct a bright line rule regarding what aspects to consider in determining whether marking the packaging amounts to ‘substantial compliance.’”

Global Traffic, 2015 WL 3513416, at *8 (internal citations omitted) (emphasis added).

added). The evidence demonstrates that, at the point of sale, consumers see at least one—if not many—box-ends marked with the patent number. Indeed, if the marking were printed on the product and not on the outside of the packaging, the marking would *not* be visible to the consumer. Defendants’ proposed method of marking would therefore only undermine the statutory purpose of providing public notice.



The second “character of the article” basis on which a jury could reasonably find that marking the package provides better notice to the public than marking the product is that the product is intended for use in a private setting, and so a marking on the product itself would be outside of public view during use. The method by which a product is used, and the setting in which it is used, are important factors to consider when assessing whether marking a product’s packaging satisfies § 287(a). See *Heraeus Electro-Nite Co. v. Midwest Instrument Co., Inc.*, 2007 WL 3407128, at *5 (E.D. Pa. Nov. 14, 2007); *Rutherford*, 803 F. Supp. at 164. Cervical Denneroll devices are used by an individual either at home or during a chiropractor-patient clinical session. Dennewald Decl. ¶¶ 10-11. As a result, the product is virtually always outside the view of the public when it is in use. This particular characteristic—that the product is “not in the

public view once installed”—supports a finding that marking the packaging complies with § 287(a). *Global Traffic*, 2015 WL 3513416, at *8. In fact, because the device is placed behind the patient’s head during use, the product is not only out of the public’s view when in use, but is also out of the individual user’s view. This further substantiates Plaintiffs’ position that the twice-marked packaging is more likely to provide notice of the patent than would a marking on the product itself.

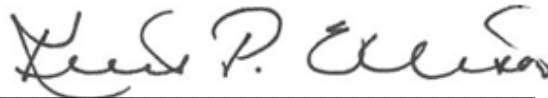
In light of these “character of the article” considerations, it would be reasonable for a jury to conclude that Denneroll’s decision to place the patent marking on the product packaging “adequately served the purpose of providing constructive notice to the public.” *Id.* at 9. Because Plaintiffs have raised a genuine dispute as to whether they complied with § 287(a), the Court finds that Defendants’ Motion for Partial Summary Judgment on Patent Marking must be denied.

IV. CONCLUSION

The disputed claim terms in the ‘732 patent are construed, if at all, as set forth in this Order. In addition, and for the reasons set forth above, Defendants’ Motion for Partial Summary Judgment on Non-Infringement (Doc. No. 36) and Defendants’ Motion for Partial Summary Judgment on Patent Marking (Doc. No. 32) are both hereby **DENIED**.

IT IS SO ORDERED.

SIGNED at Houston, Texas, on this the 23rd day of February, 2016.

A handwritten signature in dark ink, appearing to read "Keith P. Ellison", written over a horizontal line.

HON. KEITH P. ELLISON
UNITED STATES DISTRICT JUDGE